

ABSTRACT OF THE DISCLOSURE

It has been discovered that β -L-2'-deoxynucleosides are active against drug-resistant hepatitis B virus with mutations. A method for treating lamivudine resistant HBV (M552V) in a host is provided that includes administering a β -L-2'-deoxynucleoside or its pharmaceutically acceptable salt, ester or prodrug. In addition, a method for preventing lamivudine resistant HBV (M552V) mutation from occurring in a naïve host is provided that includes administering a β -L-2'-deoxynucleoside or its pharmaceutically acceptable salt, ester or prodrug. A method for preventing and/or suppressing the emergence of the HBV double mutant (L528M/M552V) in a host is also provided that includes administering a β -L-2'-deoxynucleoside or its pharmaceutically acceptable salt, ester or prodrug.